

# Assignment-7

B.Ramana

Download all python codes from

<https://github.com/BatharajuRamana/Assignment7/tree/main/Assignment7>

and latex-tikz codes from

<https://github.com/BatharajuRamana/Assignment7/tree/main/Assignment7>

## 1 QUESTION No-2.70

Find  $\mathbf{p}^{-1}$ . if it exists, given  $\mathbf{p} = \begin{pmatrix} 10 & -2 \\ -5 & 1 \end{pmatrix}$

## 2 SOLUTION

Given that

$$\mathbf{p} = \begin{pmatrix} 10 & -2 \\ -5 & 1 \end{pmatrix} \quad (2.0.1)$$

$$\xleftrightarrow{R_1 \leftarrow R_1 / 10} \begin{pmatrix} 1 & -\frac{1}{5} \\ -5 & 1 \end{pmatrix} \quad (2.0.2)$$

$$\xleftrightarrow{R_2 \leftarrow R_2 + 5} \begin{pmatrix} 1 & -\frac{1}{5} \\ 0 & 6 \end{pmatrix} \quad (2.0.3)$$

$$\xleftrightarrow{R_2 \leftarrow R_2 / 6} \begin{pmatrix} 1 & -\frac{1}{5} \\ 0 & 1 \end{pmatrix} \quad (2.0.4)$$

Does not exists  $\mathbf{p}^{-1}$